

**REMARKS**

Applicants respectfully submit that claims 1-33 are pending in the application.

**Requirement**

Restriction is required under 35 U.S.C. 121 and 372, as the application is asserted to contain the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

- I Claims 1-15 and 33, drawn to a proton conducting membrane.
- II Claims 16-22, drawn to a method of producing membrane, including mixing the support polymer with an organic-inorganic composite creoslinkable compound (C), and forming a film from the mixture.
- III Claims 23-27, drawn to drawn to a method of producing a proton conducting membrane, including mixing the support polymer with an acid group-containing compound (D).
- IV Claims 28-32, drawn to drawn to a method of producing a proton conducting membrane, including mixing the support polymer with an acid group precursor-containing compound (E).

In addition, the Office has raised election of species requirements for three of the four groups above.

In the event Applicants elect group I, the Office further requires the election of one of the metal-oxygen bond structures, either the one of claims 10 and 12, or the one of claims 13-15.

In the event Applicants elect group III, the Office further requires the election of one of the formulas representative of (D), either formula (7) of claim 24 or formula (8) of claim 25.

In the event Applicants elect group IV, the Office further requires the election of one of the formulas representative of (E), either formula (17) of claim 29 or formula (13) of claim 30.

The requirement asserts that the inventions listed as Groups I through IV do not relate to a single general inventive concept under PCT Rule 13.1. The Action further asserts that each method of groups II-IV contains a different inventive step pertaining to the mixture used to form the proton conducting membrane and thus, the Office concludes, the membranes itself does not share an inventive step with each of the methods.

### **Election**

In order to be responsive to the requirement for restriction, Applicants elect Group I, claims 1-15 and 33, drawn to a proton conducting membrane, with traverse.

Regarding the species restriction, Applicants elect the species of the metal-oxygen bond structures of claims 10 and 12. This election is without traverse to the extent that it is understood that (a) it will be withdrawn upon finding of an allowable genus; and (b) any species withdrawn for consideration will be transferred to the elected subject matter unless it is found patentably distinct from the elected or allowed claims.

Applicants submit that each claim of the elected invention, i.e., claims 1-15 and 33, reads on the elected species.

### **Traverse**

Notwithstanding the election of Group I for examination, in order to be responsive to the requirement for restriction and election, Applicants respectfully traverse the requirement for restriction and election.

Applicants note that this application is a national stage application, and therefore under unity of invention practice the Examiner must establish that the claims lack unity of invention under PCT Rule 13.1 and 37 C.F.R. § 1.475.

In particular, the Examiner is reminded that in determining unity of invention, the criteria set forth in 37 C.F.R. § 1.475 must be considered. Specifically, Applicants note that 37 C.F.R. § 1.475 provides:

Unity of invention before the International Searching Authority, the International Preliminary Examining Authority, and during the national stage.

(a) An international and a national stage application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept ("requirement of unity of invention"). Where a group of inventions is claimed in an application, the requirement of unity of invention shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

(b) An international or a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories:

(1) A product and a process specially adapted for the manufacture of said product; or

(2) A product and process of use of said product; or

(3) A product, a process specially adapted for the manufacture of the said product, and a use of the said product; or

(4) A process and an apparatus or means specifically designed for carrying out the said process; or

(5) A product, a process specially adapted for the manufacture of the said product, and an apparatus or means specifically designed for carrying out the said process.

(c) If an application contains claims to more or less than one of the combinations of categories of invention set forth in paragraph (b) of this section, unity of invention might not be present.

(d) If multiple products, processes of manufacture, or uses are claimed, the first invention of the category first mentioned in the claims of the application and the first recited invention of each of the other categories related thereto will be considered as the main invention in the claims, see PCT Article 17(3)(a) and § 1.476(c).

(e) The determination whether a group of inventions is so linked as to form a single general inventive concept shall be made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claim.

Thus, in stating the restriction requirement, the requirement must state why unity of invention is lacking under § 1.475. In the instant situation, the requirement does not refer to § 1.475, and does not indicate that the requirement is proper in view of this rule.

The requirement does point to PCT Rule 13.1 and PCT Rule 13.2, and asserts that the special technical feature of the method invention of Groups II-IV contains a different inventive step pertaining to the mixture used to form the proton conducting membrane and thus, the Office concludes, the membranes itself does not share an inventive step with each of the methods. However, the requirement does not discuss § 1.475(b)(1), which permits an international or a national stage application containing claims to different categories of invention to have unity of invention if the claims are drawn only to one of the following combinations of categories including a product and a process specially adapted for the manufacture of said product. Therefore, the requirement for restriction is not proper, and should be withdrawn.

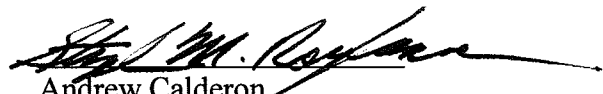
In view of the foregoing, it is respectfully requested that the Examiner reconsider the requirement for restriction, and withdraw the same so as to give an examination on the merits on all of the claims pending in this application.

### CONCLUSION

For the reasons discussed above, it is respectfully submitted that the Examiner's requirement for restriction is improper and should be withdrawn. Withdrawal of the requirement for restriction with the examination of all claims pending in this application is respectfully requested. Favorable consideration with early allowance of the pending claims is most earnestly requested.

If the Examiner has any questions, or wishes to discuss this matter, please call the undersigned at the telephone number indicated below.

Respectfully submitted,  
Toshihito MIYAMA et al.

  
Andrew Calderon  
Reg. No. 38,093

Stephen M. Roylance  
Reg. No. 31,296

July 10, 2009  
GREENBLUM & BERNSTEIN, P.L.C.  
1950 Roland Clarke Place  
Reston, VA 20191  
703 716 1191